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## No. XXVII.



*Observations made at an Early Period, on the Climate of the Country about the River Delaware. Collected from the Records of the Swedish Colony, by Nicholas Collin, Rector of the Swede's Church at Philadelphia.—Read, January 19, 1816.*

### PART I.

THE Swedish government established this colony with a view to the acquisition of a valuable territory, and to obtain new sources of profitable commerce. Accordingly, a civil administration was formed, and a company was incorporated by a charter for trading with America, Africa, and Asia. Several ships of war and other good vessels were fitted out, at divers times between 1635 and 1656, for conveying the people, military stores, merchandise, and all requisites for the settlement. Land along both shores of the river was purchased from the Indians. The first important settlement was about the place where Wilmington now stands; and a fort was built near the mouth of Christiana Creek in 1638. Governor Prinz, who arrived in 1643, chose Tinicum, about fifteen miles higher on the Delaware, for his residence, and fortified the place. A church was also built there. The colony was advancing in prosperity, but still weak in

population, when the Dutch, who had a much stronger establishment on the North River, invaded and conquered it, in 1755. Sweden, then engaged in war with six European powers, could not undertake an immediate recovery ; and after a few years it became (with the other Dutch territories in North America) an English conquest.

Since the separation from Sweden, very few natives of that country have come hither ; and among them, scarcely any women. The descendants of the colonists increased from their own stock, and from intermarriages with persons of the other European nations. Many of the last mentioned acquired the Swedish language, and adopted the Swedish mode of worship, in consequence of having, for a long while, no churches of their own. The Swedish colonists made extensive, but not compact, settlements, on both sides of the river, and on the creeks that empty into it, forty miles below and twenty above Philadelphia.

A religious connexion with the mother country continued after the conquest. One of the colonial clergymen remained until his death in 1688. A mission from Sweden commenced in 1697. Three parishes were soon after formed, one in Pennsylvania, another in the (present) state of Delaware ; and a third in West New Jersey. Three respective churches were also constructed : in Southwark, near Philadelphia, on Christina-Creek, where the fort had stood, and on Racoon-Creek, in New Jersey, twenty miles below this city, by land. Their parochial records furnish some information for my subject.

The earliest observations are contained in the Treatise of *Thomas Campanius Holm*, entitled, *Kort Beskrifning om Nya Sverige, &c.* that is, "A Short Account of New Sweden, &c." 4to. printed at Stockholm, 1702. A copy of it is in the public library of Philadelphia, but, on account of the language, can be of use to but very few, without translation. He was a grandson of the rev. *John Campanius*, a worthy clergyman of the colony, who resided there above five years, and translated the Swedish Catechism into the language of the Delaware Indians. The memoirs of this ancestor, Colonial Docu-

ments in the Swedish archives, and accounts from other persons who had been there, (among whom was his own father,) enabled him, as the preface mentions, to compose this book. The following matters of our subject are worthy of notice. As the old style was then in use, I have altered the dates conformably to the new style.

*Campanius* arrived at the aforementioned *Christiana* fort, the 26th of February, 1743. On the 6th and 7th of the same month, the vessels had suffered much from a violent snow-storm in the bay, near *Horn-kil*, now Lewistown. He kept an account of the weather for every day during the years 1644 and 1645. Our author gives a summary of the first, p. 48, 51, which is, concisely, as follows:—

*January*.—The winter began about the 21st, with severe cold, and then much snow. Afterwards came rain and a thick fog, with occasional sunshine, until the end of the month. During this time the winds were NW. ESE. SE. S.

*February*.—At first high and cold wind, then snow and sleet, with intervals of warm sunshine, until the 11th; winds N. NE. WNW. S. From the 11th until the 21st, cold and clear, sometimes pretty warm, wind generally E. The residue varied with rain, hail, clear and cold; winds S. N. S.W. E. N.W.

*March*.—In the first week cold and clear, with some snow, winds N. N.E.; in the second, calm, pleasant; in the third, rain, with thunder and lightning, sometimes hail and wet snow; winds N. NE. SE. SW.; in the remainder clear and pleasant, sometimes rain, high winds, and night frosts, winds S. SW. N. W. SE. SW. WNW.

*April*.—Blustering until the 11th, with rain, hail, thunder and lightning, sometimes warm sunshine, winds ranging from N. to S. on the west side; until the 21st generally cloudy, rainy, and raw cold, with occasional sunshine; winds N. NW. WNW. ENE. SE.; afterwards generally clear and warm, with some white frost at night; but sometimes cloudy and rainy, with thunder and lightning, winds E. W. SW. WNW.

The first half of *May* had clear warm sunshine and gentle rains, winds E. ENE. S. SW. The other half was partly serene, partly blustering, with rain and hail, thunder and lightning, winds SW. NW. N.

*June* was clear and warm, with some windy rains, winds E. ENE. S. SW. until the 11th; then much rain fell for some days, but with intervals of sunshine, winds W. S. N. The last two weeks were generally warm, with clear sunshine, sometimes a little rain, one night thunder and lightning; all this with the wind from W.

The middle of *July* was generally cloudy and rainy, winds W. and WNW. The other parts had clear, warm sun, with rain now and then, and winds W. WSW. E. ENE. Thunder and lightning happened in all the month.

The first three weeks of *August* were warm and sunny, with some rain; winds N. WNW. W. until the 11th, afterwards E. ENE. The other part was generally dry and warm, with occasional rain, thunder and lightning, winds W. WNW. N.

*September* began cloudy and wet, became clear and temperately warm for a week, then grew raw, cold and rainy, but in the latter half was calm, clear and warm, with rain at times. Thunder and lightning happened in the beginning; afterwards cold rain in the last third part. The winds were ENE. WNW. SW. S. W. until the 11th, N. WNW. ENE. WSW. S. SW. until the 21st, N. WNW. W. until the end.

*October* had clear and warm sunshine, sometimes clouds and rain, and some nights white frost, until the 21st, winds E. W. and also ENE. WNW. in the latter half of that time; from then till the end generally cloudy, rainy, chilly weather, winds N. WNW. W. E.

*November* had generally clear sunshine; the first ten days also some clouds and rain, a little snow, and white frost some nights, winds N. NW. ENE.; the next third part, clear cold, that made a little ice on the water, occasionally somewhat cloudy, winds WNW. S. N. SW.; afterwards mostly warm

sunshine, sometimes rain, thunder and lightning, and violent gales, winds WNW. SW. W.

*December* had until the 11th, clear weather, but cold and frosty, sometimes rain and snow, winds W. WNW. S.; from thence until the 21st clear sunshine and cold that made ice on the shores, now and then snow, winds W. NW. E. N.; during the residue warm, and sometimes clear sunshine.

Our author found from the diary of the next year, that it much resembled this; yet had less of thunder and lightning, greater heat in August and September, and that the autumn was dry and pleasant, sometimes cool.

Campanius returned to Sweden in the year 1648. The vessel left Cape Henlopen on the 29th of May, espied land on the 4th of June, (*probably Newfoundland*) and on the 13th passed Plymouth in England, p. 65. This extraordinary celerity was produced, no doubt, by a strong westerly wind, although no mention is made of it.

The last governor *Rising*, and the engineer *Lindstrom* came over together in 1654, and returned home after the Dutch conquest. They wrote accounts of the country, and the latter formed also a map of it. From these, which were preserved in the archives of Sweden, our author copied several matters, as the following:—"The winter begins in December, and ends in January, continuing only seven, eight, or at the most, nine weeks; but is, while it lasts, equal in cold to any in Sweden. It sometimes comes on with such violence, that the river would be covered by thick ice in three or four nights, if the billows of the sea were not so forcibly driven into it. When departing, it suddenly breaks up in all the creeks, and the ice drives with the ebb tide to the sea like mountains, and with such a roaring crash, as if a great number of large cannon were discharged. Soon after this the weather becomes quite warm." p. 49.

"It doth not often rain, but when it does, it is generally with lightning and thunder, tremendous to the sight and hearing. The whole sky appears to be on fire, and nothing can be seen but smoke and flames." p. 48.

Our author had been informed, that in the winter 1657 the river was in one night frozen so hard that a deer could run over it; this was, however, an extraordinary case, which the oldest Indians had never known. He also remarks, that this winter was the same when, in the month of February, *Charles Gustavus*, king of Sweden, passed with his army from Holstein over the Belts to the Danish Islands and Copenhagen. p. 46.

He says that the heat of summer was usually greatest from the latter part of July till the same of September, and some years so violent, that people anxiously desired clouds and rain, as these immediately cooled the air. p. 47.

He represents the climate, on the whole, as temperate, healthy, and agreeable, having in all the seasons far more of clear sunny weather, than rainy and cloudy.

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In the account of animals the following merits notice:—“The white-headed geese arrive in the beginning of April from the south, and remain about two weeks. Afterwards come the white-speckled, which continue an equal time, and proceed northward. In autumn, from the latter part of September until the same time in October, geese arrive in the river, which are all grey, and proceed southward with loud clamour, and in amazing numbers.” p. 31. quoted from *Rising*.

*Campanius* mentions, among animals, Elks: which, perhaps, in early times came so far southward; and the name of *Elk River* in Maryland renders this probable:—He describes a curious scale-fish under the name of *sea-spiders* thus: “They are always driven by the south wind on the shore of *Spinnelluden*,\* in great numbers, not being able to make a return to the sea. They are in size equal to turtles, and are covered by similar coats, but with a yellow horny shell. They have many feet, and a tail a foot long, like a triangular saw,

\* Spinnel-udden signifies Spider-point, and is the place now called Bombay-Hook.

sharp enough to cut the hardest wood. When well boiled and prepared, they are as good as lobsters." p. 41.

He also writes about another fish thus:—Opposite to Po-aetquessing Creek,\* a kind of fishes resort, which has big teeth, beats the water violently, and spouts it like whales. It is not found in any other part of the river. The Indians call it *Manitto*, p. 43.

Among the observations on vegetable products these may be remarked:—*Lindstrom* relates, that "The white and yellow Maise (Indian Corn) was used for bread, but the red, flesh-coloured, blue, dark, and speckled, was malted for beer, which became very strong, but not clear." p. 33.

Grapes of the several kinds, which we still have, grew in profusion on both sides of the river. *Campanius* says, that a vine four feet in circumference grew near Christiana Creek. p. 42.—He mentions peach-trees as growing among others, in several places. It is very improbable that they had been planted by Europeans. The remarkable abundance and variety of this valuable tree, before their decay for the last thirty or more years, proved their congeniality with the climate.

Swedish names of many places marked in the map of *Campanius* were given from various animals and trees, which abounded there: for example, *Wolf-creek*, *Deer-creek*, *Heron-point*, *Eagle-creek*, *Grape-point*, *Beach-creek*, *Hickory-island*, *Turtle-creek*, *Pike-creek*. They, with Indian names of the same kind, consequently illustrate the natural history of the country. Several of these are found in the vocabulary of the Rev. *Campanius*, annexed to his Catechism, and are inserted by our author. *Chwo*, pronounced, by the help of the Greek *omega*, very broad, signifies a pine-tree, and *Hacking* means a wood, or land generally: from these was named *Cohackin*, a district in Gloucester County, New Jersey, some miles below Philadelphia, which has many pine-trees, and still that name. *Tulpa*, turtle, accounts for the name of *Tulpehocken*, in Penn-

\* This place is some miles above Philadelphia, and still retains nearly that name.



sylvania, as the land-turtles are still numerous in this and other states. *Tunketitt manunckus siorens*, *small wicked birds*, was the name for a species, now called *blackbirds*, because their numerous and voracious flocks plundered the Indian corn. The Swedes called them *magis tjufvar*, or *maise thieves*. In the abovementioned Catechism, which displays a judicious regard to the condition of the Indians, the comment on the Lord's Prayer, enumerates the various comforts of life, and among the principal articles of nourishment, deer and *Moose*, or elks, which implies the frequency of these animals.

Hurricanes were called *Mochijric Schackhan*, *mighty winds*, on which he remarks that such violent gales came suddenly with a dark-blue cloud, and tore up oaks that had a girth of three fathoms.

The Swedes preserved a constant peace with the Indians by their kind treatment and readiness for defence, and lived in such familiar intercourse with them, that many could speak the language. It is, therefore, a matter of regret, that further valuable information respecting this, and other concerns of that people, was lost by the cessation of the colony. The Swedish government had given strict orders for good behaviour to them as native proprietors of the land, forbidding all encroachment by violence or fraud. It had also enjoined a careful investigation of all valuable vegetable, mineral, and animal productions of the country. The cultivation of the respective sciences was also retarded by the conquest, because the Dutch made commerce their main pursuit, and the English were for a considerable time, few and illiterate.

## PART II.

After the loss of the colony, a supply of clergymen was prevented by the difficulty of communication, and by the wars and other weighty affairs of Sweden. The last colonial missionary was infirm by old age for a long while, and after his demise, there was a vacancy for some years. The parochial records had, probably, been lost, as the rev. *Andrew Rudman*, and *Eric Bjork*, who arrived in 1697, found only an imperfect remnant. They formed a list of all the families, noting the names and ages of the members. The whole number of persons was about eleven hundred. This, compared with the original stock, which, though not on record, might be conjectured from the known number of vessels that had brought them, proved a considerable increase. Not a few among them were aged; and families generally had many children. This was a very probable effect of a healthy climate, and good morals. The testimony of William Penn confirms this:—"As they are people proper and strong of body, so they have fine children, and almost every house full; rare to find one of them without three or four boys, and as many girls; some six, seven, and eight sons. And I must do them that right; I see few young men more sober and laborious." *History of Pennsylvania*, by *Robert Proud*, Vol. I. p. 261.

The Swedes had, besides the church on *Tinnicum*, a lesser one on *Crane-point*, not far from *Christiana* fort, on the other side of the creek, erected in 1666. A blockhouse, raised for defence, on the Delaware, in (the present) Southwark, was also fitted for public worship in 1676. All three were decayed, and otherwise incompetent. By the laudable zeal of these clergymen, the *Christiana* church was finished in 1699, and that at Philadelphia in 1700. *Bjork* became rector of the first, and *Rudman* of this. The people in Jersey contributed to the building of these, and worshipped in them for a while.

The church on *Racoon Creek* was erected in 1704. A small chapel was added in 1717, fourteen miles below it. The two first mentioned are still extant, but in lieu of the others, new ones have been built. The respective parochial records give the following information until the end of 1744.

Among the persons numbered in 1697 were about sixty natives of Sweden, who arrived while it owned the colony. In the course of thirty years, almost all died. They were, generally, above seventy; several near or past eighty; some nearer ninety; and some beyond that age: a woman, for a long time a widow, was ninety-two: one man was an hundred; and his widow, who survived seven years, was ninety-seven. A man, the last of these Swedes, died 1742, aged ninety-seven.

Among the offspring of the colonists deceased by this time, some were beyond seventy, or near eighty; but not many had passed sixty. Some of the living were between seventy and eighty. A couple had been married sixty-three years: the wife died eighty-eight years old, 1744. A man aged ninety-seven, died 1740: but it is not certain whether he was born here or in Sweden.

Old people died, very generally in December, January, and February. Many children also died in those months, but a greater proportion between the latter part of June and the middle of October. The first part of summer was commonly the most healthy to all ages.

Pleurisy was frequently mortal, especially in 1728, (to a great number in Penn's Neck, a part of the Jersey Parish.) The small-pox frequently killed children, and in some years also youth and grown persons: many from the beginning of May, 1716, until February, 1717; and from the beginning of March until the last of December, 1731.

Some years the number of deaths was much increased, without any disease prevailing. Probably the intemperance of the seasons was, partly, the cause.

In the autumn of 1699, when the yellow fever was destructive in Philadelphia, the Swedes in the country were also

sickly, and several died ; but no mention is made of it, nor of any prevailing disease. Two brothers died, one of dysentery combined with fever.

Intermittent fevers were common near the marshes, and often shortened life, although not immediately.

Mortality of children was always great. The death of youth of both sexes, was not rare. Among the married, young women died often, but the middle aged commonly survived their husbands.

Marriages were early and generally prolific. Younger widowers and widows were also commonly re-married. Population increased accordingly ; so that during this period, viz. from 1697 until 1744, the whole number of births and deaths were in the proportion of five and two.

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Stormy winds were frequent. Many cases of danger and drowning on the Delaware, and the creeks are mentioned. In March, 1701, when a corpse was carried from Jersey for burial at the Philadelphia church, three of the attendants were lost. Several persons were killed by strokes of lightning, at divers times.

A man died by the bite of a rattle-snake in the middle of August, 1716, in a place then abounding with them.

*Rudman* mentions a violent snow-storm in the last of December, 1697.

His successor *Sandel* has left several interesting notes, which I shall quote verbatim, altering the dates to the new style.

“ On Michaelmas day, the 10th of October, fell a heap of snow that laid twenty-four hours on the ground. Afterwards it became clear and very cold. The oldest people said that such had never before happened. On the 18th of the same in the evening, a hurricane arose which caused great damage. In Maryland and Virginia, many vessels were cast away, several driven to sea, and no more heard of. Ten tobacco-houses belonging to one man were overturned. In Philadelphia, the roof of a house was torn off. A great number

of large trees were blown down. This storm also took place in England, and was destructive.

“ In 1704, in the latter part of November and December, and in January, 1705, we had many, great, and lasting snow-storms. Few persons could remember such a severe winter.

“ The winter of 1708 was very cold. Many persons observed places frozen over, which never had been so before. It also continued very late ; the 5th of April, the cold with a piercing wind was so intense, that water thrown upon the ground at noon, immediately froze.

“ In June, July, and August, 1705, during six weeks, was a great deal of bad weather.

“ The beginning of 1714 was uncommonly warm. I saw a wild flower in the woods the 8th of February. The spring was also very mild. Some rye was in ear the 10th of April.

“ In May, 1715, a multitude of locusts came out of the ground every where, even on the solid roads. They were wholly covered with a shell, over the mouth, body and feet ; and it seemed very wonderful, that they could with this penetrate the hard earth. Having come out of the earth, they crept out of the shells, flew away, sat down on the trees, and made a peculiar noise until evening. Being spread over the country, in such numbers, the noise was so loud that the cowbells could scarcely be heard in the woods. They ripped the bark on the branches of the trees, and put maggots in the openings.\* Many apprehended that the trees would wither in consequence of this, but no symptom of it was observed next year. Hogs and poultry fed on them. Even the Indians did eat them, especially on their first coming, broiling them a little. This made it probable that they were of the same kind with those that John the Baptist eat. They did not continue long, but died in the month of June.

“ This year was very fruitful. A bushel of wheat cost two shillings, or two shillings and three pence : a bushel of corn twenty-two pence : of rye twenty pence. There was also

\* Their eggs.

plenty of apples: a barrel of cider cost, at first, only six shillings."

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*Eneberg*, a clergyman of this church, remarks: 1732, in the latter part of November, ice made the river impassable: 1733 there was much snow in January.

Rector *J. Dylander* wrote the following narrative of an earthquake: "1737, December 17th, at 11 o'clock at night an uncommon earthquake happened: the houses were shaken, the windows rattled, and the shock was more felt in the upper stories. Two hours before came a violent shower from SW. which lasted only half an hour. After this, the air cleared, and became very calm. But just as the town-clock struck 11, a breeze was heard in the west, which increased more and more, and was heard near the ground, until the house began to shake, so that persons in bed felt as if rocked to and fro, and those on the floor could hardly keep standing, and plates and glasses fell down in some houses. This lasted in some places one minute, and in others two; but it went over the country with the same effect, so far as reports have come, on both sides of the river."

*P. Tranberg*, rector of the Jersey church, writes in 1727. This was a hard winter that distressed the people and the minister. The two following years the parochial records have many funerals.

The observations on the climate during the Swedish colony are the first that were made in this part of America. Records made after the arrival of William Penn, may be collected from different sources, and the whole would, if properly examined and arranged, afford very interesting information.